Title (en)

A METHOD OF HEAT TREATING METAL WITH LIQUID COOLANT CONTAINING DISSOLVED GAS

Title (de)

VERFAHREN ZUR WÄRMEBEHANDLUNG VON METALL MIT KÜHLUNG IN EINER FLÜSSIGKEIT MIT DARIN AUFGELÖSTEM GAS

Title (fr)

PROCEDE DE TRAITEMENT THERMIQUE D'UN METAL AVEC UN REFRIGERANT LIQUIDE CONTENANT UN GAZ DISSOUS

Publication

EP 0699242 B1 20000712 (EN)

Application

EP 94918046 A 19940517

Priority

- US 9405614 W 19940517
- US 6320993 A 19930518

Abstract (en)

[origin: US5681407A] A method of quenching a metal object comprising: (a) providing a reservoir of liquid coolant containing gas that has been dissolved therein; and (b) immersing the metal object in the reservoir to quench the metal. The gas is selected from the group consisting of nitrogen and carbon dioxide and is preferably carbon dioxide. The gas is preferably maintained within the range of 0.001 to 0.2 standard cubic feet of gas per gallon of coolant. The liquid coolant is preferably water. In a preferred embodiment, the reservoir of liquid coolant is open to ambient pressure and temperature.

IPC 1-7

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IPC 8 full level

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CPC (source: EP US)

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Cited by

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